

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for reducing boundary effects in ~~for~~ images with mixed screen patterns, comprising: ~~the steps of:~~  
  
    ~~halftoning an image~~ an original contone image, resulting in a halftone image  
  
    with a plurality of halftone portions; and  
  
    adjusting boundary regions located between halftone portions of the halftone image of said image to minimize a brightness deviation between the boundary regions and the original contone image. ~~of from an~~.
2. (Currently Amended) The method according to Claim 1 for reducing boundary effects in ~~for~~ images, wherein adjusting boundary regions ~~a boundary region~~ further comprises: ~~the steps of:~~  
  
    performing a low-pass filtering of in ~~in~~ halftones in ~~said the~~ boundary regions, a boundary region having a width that is ~~which have one or more than one pixels wide, along a boundary.~~
3. (Currently Amended) The method according to Claim 2 for reducing boundary effects ~~for in~~ in images, wherein low-pass filtering further comprises: ~~the steps of:~~  
  
    choosing a cutoff frequency for ~~said the~~ low-pass filtering.
4. (Currently Amended) The method according to Claim 2 for reducing boundary effects ~~for in~~ in images, wherein low-pass filtering further comprises: ~~the steps of:~~  
  
    choosing a cutoff frequency for ~~said the~~ low-pass filtering that is substantially the halftone frequency. ~~to be around halftone frequency~~

5. (Currently Amended) The method according to Claim 2 for reducing boundary effects ~~for~~ in images, wherein adjusting boundary regions ~~adjustment~~ further comprises: ~~the steps of:~~

comparing a filtered portion of the halftone image to a corresponding portion of the original contone image ~~said filtering result to said original contone image~~ and generating an error map.

6. (Currently Amended) The method according to Claim 2 for reducing boundary effects ~~for~~ in images, wherein adjusting boundary regions ~~adjustment~~ further comprises: ~~the steps of:~~

comparing a filtered portion of the halftone image to a corresponding portion of the original contone image to generate an error map that includes an error at a pixel (m,n). ~~said filtering result to said original contone image and at pixel (m,n) generating an error map.~~

7. (Currently Amended) The method according to Claim 6 ~~Claim 5~~ for reducing boundary effects ~~for~~ in images, further comprising:

adjusting pixels in the said pixels in said boundary regions to reduce a magnitude of errors ~~errors stored in the error map that correspond to the pixels.~~

8. (Currently Amended) The method according to Claim 6 ~~Claim 3~~ for reducing boundary effects ~~for~~ in images, further comprising:

adjusting sequentially the pixels in the said pixels in said boundary regions to reduce a magnitude of the errors ~~stored in the error map that correspond to the pixels.~~

9. (Currently Amended) The method according to Claim 6 ~~Claim 3~~ for reducing boundary effects ~~for~~ in images, further comprising:

adjusting said the pixels in the boundary regions by first adjusting pixels with errors larger than the errors associated with other pixels in the boundary regions ~~by starting~~

~~from pixels with larger errors to ones with smaller errors in said boundary regions to reduce a~~  
magnitude of the errors stored in the error map that correspond to the pixels with larger  
errors. magnitude of the errors.

10. (Currently Amended) A method for reducing boundary effects ~~for in~~ images  
with mixed screen patterns, comprising: ~~the steps of:~~

~~halftoning an image~~ an original contone image, resulting in a halftone image  
with a plurality of halftone portions;

~~adjusting a boundary region~~ boundary regions located between halftone  
portions of the halftone image of said image to minimize a brightness deviation between the  
boundary regions and the original contone image; of said halftone from an original contone;  
and

~~performing a low-pass filtering in of~~ halftones in the boundary regions, a  
boundary region having a width that is one or more pixels wide. which have one or more  
than one pixels wide along a boundary.

11. (Currently Amended) The method according to Claim 10 for reducing  
boundary effects ~~for in~~ images, wherein low-pass filtering further comprises: ~~the steps of:~~

~~choosing a cutoff frequency for said the~~ low-pass filtering.

12. (Currently Amended) The method according to Claim 10 ~~Claim 11~~ for reducing boundary effects ~~for~~ in images, wherein low-pass filtering further comprises: ~~the steps of:~~

choosing a cutoff frequency for ~~said the~~ low-pass filtering that is substantially the halftone frequency ~~to be around halftone frequency~~

13. (Currently Amended) The method according to Claim 10 for reducing boundary effects ~~for~~ in images, wherein adjusting boundary regions ~~adjustment~~ further comprises: ~~the steps of:~~

comparing a filtered portion of the halftone image to a corresponding portion of the original contone image ~~said filtering result to said original contone image~~ and generating an error map.

14. (Currently Amended) The method according to Claim 10 for reducing boundary effects ~~for~~ in images, wherein adjusting boundary regions ~~adjustment~~ further comprises: ~~the steps of:~~

comparing a filtered portion of the halftone image to a corresponding portion of the original contone image ~~to generate an error map that includes an error at a pixel (m,n).~~ ~~said filtering result to said original contone image and at pixel (m,n) generating an error map.~~

15. (Currently Amended) The method according to Claim 14 ~~Claim 12~~ for reducing boundary effects ~~for~~ in images, further comprising:

adjusting pixels in the said pixels in said boundary regions to reduce a magnitude of errors stored in the error map that correspond to the pixels.

16. (Currently Amended) A method for reducing boundary effects in for images with mixed screen patterns, comprising: ~~the steps of:~~

means for halftoning ~~an image~~ an original contone image, resulting in a halftone image with a plurality of halftone portions;

means for adjusting a boundary region located between the halftone portions of the halftone image ~~of said image~~ to minimize a brightness deviation between the boundary regions and the original contone image; ~~of said halftone from an original contone~~;

means for performing a low-pass filtering ~~in~~ of halftones in ~~said the~~ boundary regions, a boundary region having a width that is one or more pixels wide; ~~which have one or more than one pixels wide along a boundary~~; and

means for choosing a cutoff frequency for the low-pass filtering.

17. (Currently Amended) The method according to Claim 16 for reducing boundary effects in for images, wherein low-pass filtering further comprises: ~~the steps of:~~

means for choosing a cutoff frequency for ~~said the~~ low-pass filtering that is substantially the halftone frequency. ~~to be around halftone frequency~~

18. (Currently Amended) The method according to Claim 16 for reducing boundary effects in for images, wherein adjustment further comprises: ~~the steps of:~~

means for comparing a filtered portion of the halftone image to a corresponding portion of the original contone image ~~said filtering result to said original contone image~~ and generating an error map.

19. (Currently Amended) The method according to Claim 16 for reducing boundary effects in for images, wherein adjustment further comprises: ~~the steps of:~~  
means for comparing a filtered portion of the halftone image to a corresponding portion of the original contone image and generating an error map that includes an error at a pixel (m,n). ~~said filtering result to said original contone image and at pixel (m,n) generating an error map.~~

20. (Currently Amended) The method according to Claim 19 ~~Claim 16~~ for reducing boundary effects in for images, further comprising:  
means for adjusting pixels in the boundary regions ~~said pixels in said boundary regions~~ to reduce a magnitude of errors stored in the error map that correspond to the pixels.